CLAIMS

What is claimed is:

1. A method for processing network layer messages within a wireless communication system, the network layer including within it certain functional layers, including a radio resource function, a mobility management function, and a connection management function with at least the radio resource function being normally assumed to be a transport mechanism for the mobility management and connection management functions, the method comprising the steps of:

10 examining a network layer message to determine, prior to routing it to any functional layer, whether it is associated with connection management, mobility management, or radio resource management; and

routing the message directly to the respective connection management, mobility management, or radio resource management functional layer, directly

15 and without passing the message between functional layers.

2. A method as in claim 1 wherein the steps of examining and routing the message are performed within a network layer thread as the message is first received by the network layer.

3. A method as in claim 1 wherein the steps of examining and routing the message

20 are performed within a lower layer layer thread as the message is passed up to the network layer by the lower layer.

4. A method as in claim 1 wherein the step of examining only processes messages traveling in an uplink direction from a mobile station towards network subsystem components.
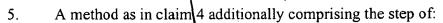
5.   A method as in claim 4 additionally comprising the step of:

for messages traveling in a downlink direction from network subsystem

components towards the mobile station;

processing downlink network layer messages in a direct manner such that

5   the network layer messages do not step through other layer protocol stacks.

6.   A method as in claim 5 additionally comprising the step of directly routing

network layer messages that do not require acknowledgment.

7.   A method as in claim 5 wherein downlink network layer messages that comprise

connection management messages are first routed to the mobility management

10   function.

8.   A method as in claim 3 wherein network layer messages that comprise mobility

management messages are first routed to the radio resource function.

9.   A method as in claim 1 wherein the steps of examining a network layer message

and routing the message directly to the respective functional layer are performed

15   in a subsystem incorporating Base Transceiver System (BTS), Base Station

Controller (BSC), and Mobile Switching Center Subsystems (MSC).

10.   A method as in claim 1 wherein the steps of examining the network layer

message and routing the message directly to the respective functional layer are

performed in a mobile station (MS).